

**I CLAIM AS MY INVENTION:**

1. An interface unit for use with an electrophysiology measurement system having an electrophysiology monitoring system and a plurality of catheter-mounted sensors respectively connected to ~~male~~ connectors, said interface unit comprising:

a plurality of externally accessible ~~female~~ electrical connectors respectively adapted for releasably mating with said ~~male~~ connectors;

an arrangement for producing predetermined interconnections among said ~~female~~ connectors, said arrangement adapted for communicating with said electrophysiology monitoring system; and

a signal generator connected to said arrangement which emits an output signal, adapted to be received by said electrophysiology monitoring system via said arrangement, containing information unique to and originating from said interface unit, for use by said electrophysiology monitoring system.

2. An interface unit as claimed in claim 1 further comprising a housing, and wherein said signal generator emits said output signal containing information unique to said housing.

3. An interface unit as claimed in claim 2 wherein said signal generator comprises a read-only memory containing said information unique to said housing.

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4. An interface unit as claimed in claim 1 wherein said ~~female~~ connectors are disposed at an outer surface, and wherein said interface unit further comprises at least one label layer placeable over said outer surface and carrying visible indications of said interconnections, and wherein said signal generator emits said output signal containing information unique to said label layer.

5. An interface unit as claimed in claim 4 wherein said label layer is removably placeable on said outer surface.

6. An interface unit as claimed in claim 5 wherein said label layer is permanently fixed at said outer surface.

7. An interface unit as claimed in claim 4 wherein said signal generator comprises an element placeable on said outer surface together with said label layer and containing machine-readable information unique to said label layer and a reader arrangement for reading said machine-readable information from said element for generating said output signal.

8. An interface unit as claimed in claim 1 wherein said signal generator generates said output signal containing a protocol for a ~~wireless~~ <sup>sensor unit</sup> connector mating configuration among said ~~male~~ and ~~female~~ connectors.

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9. An interface unit as claimed in claim 1 wherein said signal generator emits said output signal containing at least a portion of said electrophysiology examination set-up protocol.

10. An electrophysiology measurement system comprising:

a plurality of catheter-mounted sensors respectively having ~~male~~ <sup>sensor electrical</sup> connectors associated therewith;

a monitoring system for analyzing signals from said sensors; and

at least one interface unit connected between said sensors and said monitoring

system, said interface unit having a plurality of ~~female~~ <sup>unit electrical</sup> connectors respectively receiving <sup>a one of</sup> ~~said male~~ <sup>sensor</sup> connectors and containing an arrangement defining interconnections among said ~~female~~ <sup>unit</sup> connectors,

said arrangement being in communication with said monitoring system, and said interface unit further having a signal generator connected to said arrangement for generating an output signal unique to and originating from the interface unit supplied to the monitoring system via said arrangement, said output signal modifying operation of said monitoring system dependent on said information.

11. An electrophysiology measurement system as claimed in claim 10 wherein said ~~female~~ <sup>unit</sup> connectors are disposed at an outer surface of said interface unit, and wherein said interface unit has a label layer, removably placeable on said outer surface, carrying permanently fixed visible indications of different ~~wire connector~~ <sup>sensor/unit connector</sup> configurations and a human readable label layer identification code, a housing having a human

readable housing identification code, and wherein said signal generator generates said output signal unique to said housing, and wherein said monitoring system has a data presentation device and a processor with label layer identification codes stored therein for predetermined electrophysiology examinations, said processor modifying operation of said monitoring system to present a layer identification code and a housing identification code protocol on said presentation device for a selected one of said examinations.

12. An electrophysiology measurement system as claimed in claim 10 wherein said ~~female~~ <sup>unit to</sup> connectors are disposed on an outer surface of said interface unit, and wherein said interface unit further has a label layer, removably placeable on said outer surface and wherein said signal generator generates said output signal unique to said label layer, and wherein said electrophysiology monitoring system has a processor with an indication of at least one label layer stored therein for each of a number of different predetermined electrophysiology examinations, and wherein said processor compares the label layer identified in said output signal with an indication for a selected electrophysiology study, and modifies operation of said monitoring system dependent on a result of the comparison.

13. An electrophysiology measurement system as claimed in claim 10 wherein said signal generator generates an output signal containing at least a portion of an electrophysiology examination set-up protocol, and wherein said monitoring system has a processor which receives said set-up protocol and modifies operation of said monitoring system in accordance with said protocol.

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14. An electrophysiology measurement system as claimed in claim 13 wherein said monitoring system comprises a signal switching unit having switch settings controllable by said processor, and wherein said set-up protocol contains information for use by said processor to vary said switch settings dependent on said examination.

15. An electrophysiology measurement system as claimed in claim 13 wherein said set-up protocol contains information for use by said processor for varying at least one of a presentation format and a type of study data recorded by said monitoring system.

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